

## ABSTRACT

An apparatus and method are disclosed for acquiring by a mobile terminal a pseudo-random noise (PN) sequence of a pilot signal received from a  
5 base station by means of a searcher, designating a phase of the acquired PN sequence as a reference phase to track the phase of the acquired PN sequence, and measuring an energy difference between an early path and a late path for the reference phase in a mobile communication system. In the apparatus and method, a first energy measurer measures a first energy value from a PN sequence with  
10 the reference phase, and a second energy measurer alternately measures energy values of the early path and the late path for the reference phase and outputs a second energy value. A first normalizer normalizes the first energy value with the second energy value, and a delay processor delays the normalized energy value for a predetermined time; a subtractor calculates a difference between the  
15 normalized energy value output from the first normalizer and the energy value output from the delay processor.